

ARTICLE PROTECTED BY A THERMAL BARRIER COATING
HAVING A CERIUM OXIDE-ENRICHED SURFACE
PRODUCED BY PRECURSOR INFILTRATION

ABSTRACT OF THE DISCLOSURE

A protected article is prepared by depositing a bond coat onto an exposed surface of the article; and producing a thermal barrier coating on an exposed surface of the bond coat. The thermal barrier coating is produced by depositing a primary ceramic coating onto an exposed surface of the bond coat, depositing a cerium-oxide-precursor compound onto an exposed surface of the primary ceramic coating, and heating the cerium-oxide-precursor compound in an oxygen-containing atmosphere to form cerium oxide adjacent to the exposed surface of the primary ceramic coating.